

Date: Tue, 20 Jul 93 21:30:15 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #882  
To: Info-Hams

Info-Hams Digest                      Tue, 20 Jul 93                      Volume 93 : Issue 882

Today's Topics:

2, tr/2watt range...  
Beginner -- Help [LONG]  
KC0Q/N0II CMOS SuperKeyer II  
Lightning Bolt Quad Review  
Nomenclature for T0220 Socket  
Radio Shack ....  
Range? Portable Transceivers 2 Watt.  
STILL waiting for your license? Read this and weep! (2 msgs)  
Super Morse problem in Windows  
UHF Contest Activity (info thread)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----  
Date: Tue, 20 Jul 1993 22:49:01 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!  
willis1.cis.uab.edu!right.dom.uab.edu!user@network.ucsd.edu  
Subject: 2, tr/2watt range...  
To: info-hams@ucsd.edu

In article <1993Jul20.165937.10466@ll.mit.edu>, wjc@ll.mit.edu (Bill  
Chiarchiaro) wrote:

> 2-3 miles line of sight? That would be pretty poor.  
>  
> Several years ago, I witnessed a 450-MHz FM contact from the roof of  
> a building in Cambridge, MA to Mt. Washington in New Hampshire. The  
> elevation at the Cambridge end was about 325 feet MSL (AGL also); Mt.

> Washington is 6,288 feet MSL. The direct distance is 132 miles.  
> Given normal refractive conditions and a smooth earth, this is just  
> within unobstructed (i.e. radio line-of-sight) range. New England,  
> however, is definitely not smooth. Refractive conditions were  
> unspectacular. I suspect the path was not unobstructed.  
>  
> The radio in Cambridge was a Yaesu FT-709 HT with its own  
> quarter-wave whip (or perhaps a short helical). The radio at Mt.  
> Washington was a mobile rig with a car-mounted antenna --- a 5/8 over  
> 1/2 at most.  
and here in birmingham we can hit a tower in Tuscaloosa, a distance  
of about 50-60 miles, with my HT running on low power, about 1 watt  
into the rubber duck. signal reports I get are 59.

-----  
Date: Tue, 20 Jul 1993 23:33:41 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!noc.near.net!  
inmet!cobra!bwhite@network.ucsd.edu  
Subject: Beginner -- Help [LONG]  
To: info-hams@ucsd.edu

Note: I am sending this note to the Boston Amateur Radio Club's email  
list and the Usenet groups rec.radio.amateur.misc and  
rec.radio.amateur.antenna. Please forgive me if you see this  
several times. I hope it is in the right places.

I am a (sort-of) newly minted low-code tech, and I am having alot of  
problems getting started on HF. I wonder if somebody can give me some  
direction, as I have used up all of my tiny imagination. The short  
description is that I am having trouble getting the transceiver to  
load into the antenna. (That's not the right phrase -- what is?) I  
am wondering if it is operator error, a really gross antenna mismatch  
or something wrong with my radio.

The long answer is this. My equipment consists of:

1. Yaesu FT101E. This might be an FT101EE. I don't remember  
right now, and I am not in my shack to check it. I bought this  
second-hand from someone who claimed it worked fine. I believe  
him, but perhaps something has malfunctioned recently.
2. MFJ 949E Antenna Tuner. (This number may be wrong. It's the  
one which costs around \$150 and has a 300W dummy load.) I  
bought this new, so presumably it is good.
3. 150' of 12 or 14 gauge speaker wire (that's 75' split into two  
parts.) It looks to be about the same size as the 14 gauge  
antenna wire I bought just recently, but since it is insulated  
I can't tell exactly.
4. 100' of RG8/U coax. I don't know the brand, as I bought it at

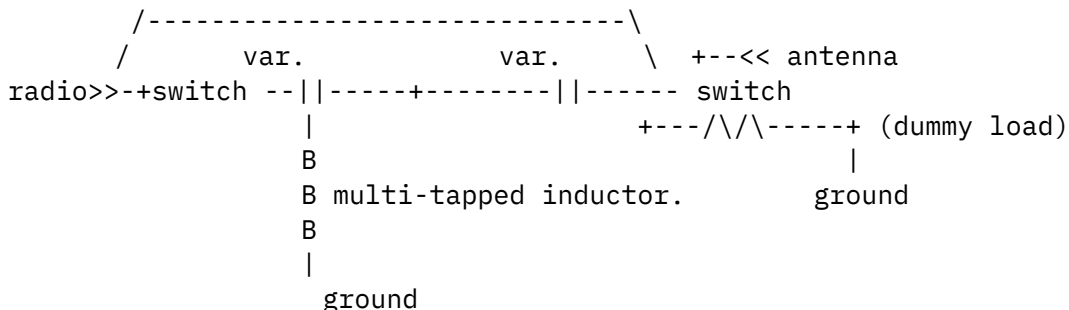
a fleamarket. I think this number is right. It's the size coax which uses the mumble-176 adapter on the PL-259 connector.

Now, I have connected the machinery in what seems to me to be the sensible topology:



The cable connecting the tuner and the radio is a short piece of coax with two PL-259 connectors. These were my first attempts at soldering these kind of connectors, and my first attempt to solder anything in twenty years, so I suspect them of being badly done. I did try to check it for connectivity, and it seemed to be ok. However, I only have a code practice oscillator to test continuity, and nothing sophisticated. I don't even have a multimeter yet, although it's on my list. That is, perhaps a bad connection is causing some large inductance which my DC tester is interpreting as a good connection, but which the RF transmitter output sees as a big load. This seems unlikely, but I can't test for it, so perhaps it is there. A bad connection seems more likely to me to cause capacitance, which would look like an open circuit to my DC tester, right?

The tuner is essentially a T network with 2 variable capacitors and one multiply tapped inductor.



The switch has several positions:

- Two coax input, and one unbalanced input with the matching network switched in.
- The same three inputs with the matching network switched out.
- A 300W max dummy load with the matching network switched in.
- The 300W max dummy load with the matching network switched out.

There are both forward and reflected power meters (crossed needles) on the tuner, and a pushbutton switch to select between 30W and 300W maximum meter deflection. All of the following description is with the 300W button setting.

Now, when I turn the radio on and try to tune it up. The following

peculiar things happen. I go through the pre-tuning process, and then start to peak the finals. These peaking process consists of peaking the power output (as read with the radio's meter) for increasing settings of the carrier control by manipulating the plate, loading, and preselect knobs. (N.B. The radio's meter is set to measure relative power output -- the P.O. setting.) However, when I switch the dummy load on with the matching network switched out I can only perform the peaking process when the carrier is 60% or so of its maximum. The manual seems to believe that the carrier arm can be moved to 100% of its maximum, but with more than 60% the power meter on the radio is pinned, and the power meter on the tuner reads 150W or so. I haven't left it on for long enough to get a good look at the tuner's meter reading, since I didn't want to hurt the radio.

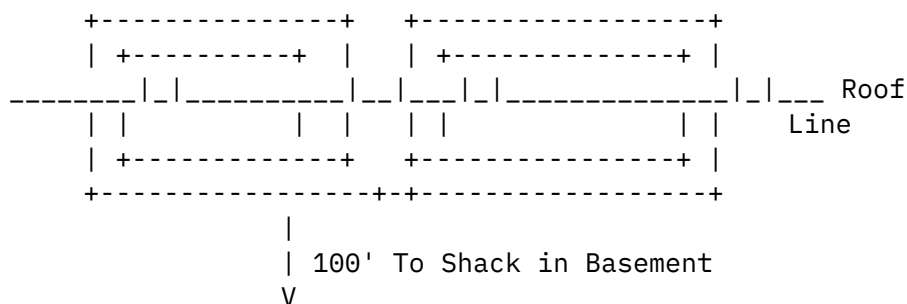
Note1 The tuner's reflected power output meter doesn't move when the tuning network is switched out and the dummy load is switched in. Since the dummy load is completely resistive, this is what I would expect. Furthermore, this seems to tell me that there is some problem independent of the antenna, and probably with the radio, but perhaps I am wrong.

Note2 The loading control seems to peak when it is at the minimum setting. Since I don't know what loading means in this context I don't know how to interpret this. Is something wrong here?

Now, when I try to do the peaking with the dummy load on and with matching network switched in, I get chaos. The meter pins at 40% or so of the carrier's maximum swing, and the reflected and forward power meters on the tuner dance like Fred and Ginger. I get an SWR reading of 15:1 in the 1-1.5 seconds I turn on the transmitter. This is with the dummy load switched in, and not the antenna, so something is clearly wrong. Neither the loading control on the radio nor any of the tuner's settings seem to make any difference in the SWR or in the reflected power reading.

This is as far as I have gone so far. I am presuming that the antenna is not an issue here, since I haven't even switched it in. However, I am not sure the antenna is configured in the best way. The remainder of this note describes the antenna -- perhaps someone can suggest a better alternative.

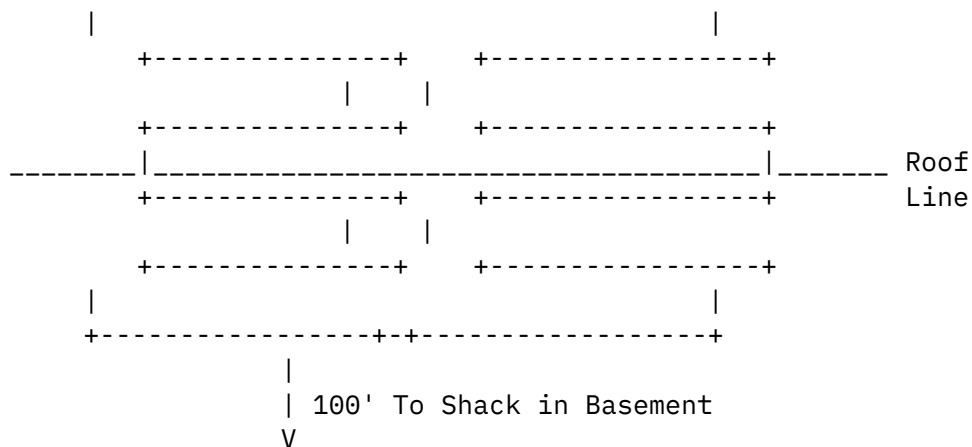
The speaker wire is configured as a jumbled up dipole in my attic. That is, the coax feedline comes up from the basement (along some heating vents), up alongside a chimney, and into the attic. The shield and core are connected to the two arms of the dipole. The attic is not 150' long, it's more like 40' long, so I have curled the arms of the dipole around. If you were to lay on the attic floor and look up it might look something like this:



Of course the geometry is not even close to the picture.. One arm is packed into a space about 1/4 as big as the other due to the geometry of the house. The house is wooden with no aluminum siding. The speaker wire is set off from the roof joists with those little standoffs you get at Radio Shack to use with twin-lead television antenna wire.

I have two questions:

- The standoffs are a loop of metal (aluminum I think, but perhaps brass plated steel) which go around the antenna wire. Do these look like inductors to the antenna and increase the inductance, and make the tuner's job too hard.
- The antenna's arms are a spiral in. Will they work better if they go back and forth? That is, it is better to put them like this:



This wouldn't be all that hard to do, but if it won't make much difference I won't mess with it.

Date: 20 Jul 1993 22:53:57 GMT  
 From: korie1!west.West.Sun.COM!11-a!flloyd@decwrl.dec.com

Subject: KC0Q/N0II CMOS SuperKeyer II  
To: info-hams@ucsd.edu

In article <CAF3AH.Iq1@gremlin.nrtc.northrop.com> domae@lava.nrtc.northrop.com  
(Terry Domae ) writes:

>I have a couple of questions regarding this Keyer (QST Nov 90).

>

>First, I was interested in general opinions on this keyer.

>

>Second, I understand there have been some ``Enhancements'' - Does anyone  
>have any Ideas what these may be??

>

I would rate the CMOS Super Keyer II as one of the best of all time.  
It has absolutely perfect timing, is very smooth to operate, has  
a decent memory, uses very, very little power, has a very useful  
command set, is extremely reliable, has a low parts count, and is  
inexpensive. What more could one ask for?

The enhancements were in the firmware, something to do with the  
user interface. I didn't get the new version, and haven't missed it.

Go for it!

-fred

[ Fred Lloyd, AA7BQ  
[ Sun Microsystems,  
[ Phoenix, AZ

Fred.Lloyd@west.sun.com ]  
Systems Engineer ]  
(602) 224-3517 ]

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Date: 20 Jul 93 21:58:34 GMT  
From: rtech!amdahl!JUTS!szb50@decwrl.dec.com  
Subject: Lightning Bolt Quad Review  
To: info-hams@ucsd.edu

My only question is what took you so long -- stopping for drinks I  
suppose. I put mine together all alone and a lot faster than I thought,  
next I got the assistance of G0IVD (Pat) and we had it all up and  
working on one of those rare sunny days in February, it took us about  
an hour to put the elements on the boom and tighten everthing up, we  
played around with tuning for about another hour, then sat in the sun  
playing radio for the rest of the afternoon.

Excellent antenna, good quality parts, light and easy to put together  
and to raise, my previous antenna was a boomless quad and murder to put up,

I have recommended it to my brother (KD40KI) and hope to see him on the

air with one soon.

I understand just how you feel, JUST GREAT!

73 de SID \*\*\*\*\* G3VBV\*\*\*\*\*

Amdahl (UK) Tech Ops Group

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Date: Tue, 20 Jul 1993 23:12:41 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!  
mailer.cc.fsu.edu!geomag!zateslo@network.ucsd.edu  
Subject: Nomenclature for T0220 Socket  
To: info-hams@ucsd.edu

In article <1993Jul20.210655.14354@osuunx.ucc.okstate.edu>  
martin@datacomm.ucc.okstate.edu (Martin McCormick) writes:

>  
> What is the correct nomenclature for sockets that will properly  
> hold a T0220-style transistor?

How about "T0-220 Transistor Sockets"? :-)

> I have seen some in a Heath Kit Weather  
> station and would like to get a bunch of them for projects. It would be  
> very good if one can get them in both PC-mount and point-to-point style.

The Digi-Key catalog has them, made by Molex. They make both a  
straight-line pin design and one that offsets the middle pin a bit.  
It looks like they're all PC-mount, but you could use them in  
point-to-point wiring by soldering wires to the pins and using  
a bit of heat-shrink tubing.

Also, the T0-220 case was designed to fit T0-66 sockets by bending the  
two outside leads and attaching the tab to the "collector" terminal  
with one of the screws. Some T0-66 sockets don't like the thickness  
of the T0-220's leads, though.

Ted Zateslo, W1X0  
zateslo@geomag.gly.fsu.edu

-----  
Date: 21 Jul 93 01:00:32 GMT  
From: ogicse!uwm.edu!csd4.csd.uwm.edu!pachner@network.ucsd.edu  
Subject: Radio Shack ....  
To: info-hams@ucsd.edu

I thought this newsgroup was for talking about the hobby. But lately it  
seems to be a Radio Shack stomping ground.

(file cut for file size)

<<I called the other day to ask if RS had a certain transistor. The salesdroid  
<<said "Yes, it can be found in our cross reference.."  
<<I said: "Could u please look up (whatever it was) for me..."  
<<salesdroid: "Oh, I, uh, I have a line of customer waiting...but  
<< u can look it up if u want..."  
<<I said: "I am sitting at home, abt 10 miles from ur store, hence  
<< I cannot look it up from here, maybe u missed that..."  
<<salesdroid: "Well, sir, like I said I have a bunch of customers..."  
<<I said: "Yeah...Right.." and Hung Up!!!  
<<  
<<Perhaps that was rude, but this is not the first instance a RS saledroif has  
<>been to lazy to help me over the phone.

>Maybe he had a bunch of customers waiting?

(cut here for file size)

>  
>  
>I presume you enjoy it when a salesperson keeps you waiting while  
>he or she picks up the phone and talks to someone. I can tell you  
>I don't. As far as I'm concerned the Radio Shack clerk did exactly  
>the right thing and I would have thanked him for it if I'd been in  
>line.

I've been working at R.S. to help me make it through school. I work at a  
small store so I often work by myself. As far as priority goes it's the guy  
that has been there the longest. The telephone always takes second priority  
to the customer in the store. (I know that someone has probably been shafted  
for a customer with a \$20 purchase over your fuse, but I guarentee it wasn't  
me.)

As far as cross-referencing a transistor, if I'm not with somebody then I'll  
look it up in my catalog.

As far as my store is concerned we are somewhat of an oddball, the salesteam  
is composed of two amateur operators, and a fax/copier serviceman.

As I stated I hope this newsgroup returns to amateur topics instead of a  
R.S. slash fest.

--

=====

Thomas Jay Pachner -- Music Major, Bassist, Gamer, and Amateur Operator  
University of Wisconsin - Milwaukee - pachner@csd4.csd.uwm.edu  
Amateur Call Sign: almost 2 weeks since test



-----  
Date: Tue, 20 Jul 1993 23:42:24 GMT  
From: elroy.jpl.nasa.gov!usc!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!  
m2.dseg.ti.com!ernest!cmptrc!carter@ames.arpa  
Subject: Range? Portable Transceivers 2 Watt.  
To: info-hams@ucsd.edu

In article <CA8HpI.DL8@cbnewsm.cb.att.com> jeffj@cbnewsm.cb.att.com  
(jeffrey.n.jones) writes:  
>In article <1993Jul15.212119.5975@sctc.com> curry@sctc.com (Russ Curry) writes:  
>>  
>> Roughly speaking, what's the effective transmit range  
>> of those little Handheld Transceivers ( 2 Watt/ 2 Meter )  
>> in miles ( under optimal conditions? )  
>  
>[some deleted]  
>The range is really determined by line of  
>sight conditions. Working repeaters or other hams that are at a  
>higher elevation is easy on 1 to 5 watts and the range can be,  
>as in the above case, 200 plus miles. Then again, in downtown areas,  
>less than 1 mile at times. Hope this helps!

Agreed! There was one spot in town where I used to live where I could  
reliably work the metropolitan repeaters about 60 mi away, using 3W into  
a mag-mount 1/4 wave antenna. I later moved to that city and could not  
reliably hit all the same repeaters with the same setup. Guess I had  
a good "downhill" view before I moved. Nowadays I live in D/FW and I  
really need about 45 Watts to do any good.

--

Carter R. Bennett, Jr. - Scientist | "Tai-Kwon Leep is not a path to a door,  
carter@scilab.lonestar.org - home | but a road leading forever to the  
carter@cmptrc.lonestar.org - work | horizon." - Li Fong  
KI5SR | "Kinda like UUCP mapping." - Carter Bennett

-----  
Date: 21 Jul 93 02:06:07 GMT  
From: news.service.uci.edu!orion.oac.uci.edu!easu348@network.ucsd.edu  
Subject: STILL waiting for your license? Read this and weep!  
To: info-hams@ucsd.edu

I agree with the writer that this is poor handling of the situation. I took  
my test at a local Red Cross chapter HQ, and they sent the papers in the  
next day, and I got my license in just under 8 weeks. I would think that  
everyone should have a Red Cross building somewhere near them. Just an idea  
for the people reading this who have yet to take the test.

--

Andrew Parker | KD6TGM | easu348@orion.oac.uci.edu

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Date: 20 Jul 1993 18:26:21 -0700  
From: techbook.com!techbook.com!not-for-mail@uunet.uu.net  
Subject: STILL waiting for your license? Read this and weep!  
To: info-hams@ucsd.edu

After mentioning to a friend that the 8 week wait for my  
ticket had come and gone with no ticket in sight,  
he sent me the following (caustic) mail.  
I initially discounted his sarcasm, but, live and learn!

=====

If the sad truth might offend you, press n now.

=====

> To: genew@techbook.com  
> Subject: Okay... Since you asked,  
> Date: Mon, 19 Jul 1993 15:06:07 -0700  
> From: David Simmons <davids@ims.com>  
> Status: RO  
>  
>  
> I KNOW who's holding up your license. It's... (drum roll...)  
>  
> Repeter Peter!  
>  
> It's buried on his desk where he works, at the headquarters of the  
> ARRL (Anally Retentive Regulation Lovers).  
>  
> In case you're wondering who he is, if you'll give it a moment's thought,  
> you've seen him any number of times.  
> He's at every "bunny hunt", "field day", etc.  
> You can recognize him by his bumbling gait, his beat-up "juicer hat",  
> (you know, the kind with the brim turned down all the way around,  
> that looks sort of like a tortoise road-kill), with all the pins and  
> buttons on it that he's gotten from various ham "gatherings",  
> and - of course, NEVER leave home without it - his HT, which he holds  
> clutched in his hand at all times.  
>  
> Your license might or might not surface on his desk eventually.

> He only goes to work, (taking the term loosely), at ARRL about 2 or 3 days  
> a week, and even when he's there, he spends most of his time leaning on  
> things near the desks of the others of his kind who work (?) there,  
> chewing the rag, (as best he can with dentures), and distracting THEM  
> from doing anything about the pile of license applications on THEIR desks.  
>  
> About the only way you'll ever get the application to surface is to go  
> directly to where Peter works, and catch him there. You might have to  
> camp out overnight several nights, but eventually he'll show up.  
> At that point, you can inform him that because, due to HIS intransigence,  
> you are unable to get a license, you're going to start transmitting  
> WITHOUT ONE. Even though you have no intention of doing any such thing,  
> the mere suggestion of ANYone doing ANYthing to violate ANY sort of  
> regulation, however small and insignificant, will brutally yank any  
> Anally Retentive Regulation Lover such as Peter out of its antenna  
> daydreams, and back to semi-reality. And the implication that HE  
> is RESPONSIBLE for this will further cause him to shuffle back to his  
> desk and start shuffling through papers in search of your license  
> application.  
> Hopefully, he'll find it before the adrenalin wears off.  
> (Hopefully, the adrenalin in his system won't counteract the nitroglycerin  
> and cause a heater-to-cathode short, in which case your application will  
> never see the light of day again...)  
>  
> There is another alternative: you COULD just go reapply and take the test  
> again, this time using a REAL license-processing facility such as... what was  
> it - W5YI, or something? and write it off as a learning experience in how to  
> recognize an Anally Retentive Regulation Lover in general,  
> a Repeter Peter specifically,  
> and - most importantly - how to steer clear of both...

Having read his opinion, I thought, NO WAY! Those folks at ARRL know what it's  
like to wait around for the government to move forward. They will move  
heaven and earth to get the paperwork to the FCC ASAP.

NOT!!!!!!!!!!

I called the ARRL VE info number, 1-800-9ARRLVE.

The local testing group sent the paperwork in promptly, by overnight mail.

The Anally Retentive Regulation Lovers hung onto it for 17-19 days!

I quote the ARRL representative,  
"The laws allows both the local VE's and the ARRL to take up to 10 DAYS each."

Not only did the ARRL use it's 10 day allotment but sucked up the field VE's

as well.

As you may have noticed, I am not impressed!

Their representative reminded me of how much faster and more efficient they are compared to the FCC and recommended that I call my Congressman and ask for more money for the FCC. That, said he, will speed things up.

I am not going to hold my breath waiting for the government to speed ANYthing up no matter how much money they get.

Does anyone know what the hell the ARRL does with the license stuff?  
Is it SO bloody complicated that it needs to take WEEKS?

It will probably be a cold day in hell before the FCC improves but can't we do something to help out the ARRL?

My "positive" suggestion:

If they need more people, I for one would cheerfully double, triple, or quadruple the \$5.60 fee for testing if it got the damn papers shuffled expeditiously!

You can't buy a rubber dummyload for your HT for \$20. What's \$20 to whack 2-3 weeks off of the already interminable wait for your license?

I had made a commitment to help provide emergency communications at an upcoming event. I prefer to keep my commitments, but I don't seem to have any options this time.

There, I feel a little better now....

I'd feel a damn sight better if my paperwork was on a reasonable schedule!

--

Those who beat their swords into plowshares  
are destined to plow for those who don't.  
genew@techbook.COM

Please direct flames to: genew@ucant.gethere.frmhere

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Date: 20 Jul 1993 22:08:27 GMT  
From: hal.com!olivea!news.bu.edu!david@decwrl.dec.com  
Subject: Super Morse problem in Windows  
To: info-hams@ucsd.edu

I have solved the problem with running Super Morse under Windows. In order to make the dits and dahs sound right under Windows requires using version 4.04 of Super Morse. There are instructions on how to configure it in the manual (RTFM), and there is a calibrate option in the setup menu that will get the speed right. My thanks to all that replied.

The newer version is available from wuarchive.wustl.edu as:  
mirrors/msdos/hamradio/sm404.zip

>David<

--

David R. Gagnon, MD MPH  
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Boston, Massachusetts

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gagnon@math.bu.edu  
(617) 638-5172

"ecrasez l'infamie"

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Date: Tue, 20 Jul 93 12:02:15 CDT  
From: usc!howland.reston.ans.net!darwin.sura.net!news-feed-2.peachnet.edu!umn.edu!  
kksys.com!edgar!brainiac!moron!pillock!stevej@network.ucsd.edu  
Subject: UHF Contest Activity (info thread)  
To: info-hams@ucsd.edu

eri316@tijk02.uucp (Ed Ingraham ) writes:

> Anybody have any feel for the level of activity I might find in the  
> August UHF Contest? I'm in EM86 and interested in 222, 432, 1296.  
>  
> 73, Ed WX4S  
>

There is a lot of activity up and down the coast and midwest area. 222  
shouldn't be a problem. 432 is more popular and will be really hopping if  
the band is open. 1296 is a real challenge and my favorite band. As I  
remember EM86 is realitively rare so if you can get the word out people will  
be looking for you.

\*\*\*Anybody else that will be in the UHF contest, please post your grid and  
bands in this thread.\*\*\*

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End of Info-Hams Digest V93 #882  
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